

ARGUMENTS/COMMENTS

Claims 1, 3, 4, 6-19 21, 22, 24-30 32, 33, and 35-42 stand as rejected under 35 U.S.C. §112 as being indefinite. It is the Examiner's position that the use of about for temperature ranges in view of the crowded art area is improper.

The claims of the present invention have been amended to delete the term "about." The Claims are now in condition for allowance under §112.

Claims 1, 3, 4, 6-19 21, 22, 24-30 32, 33, and 35-42 stand as rejected under 35 U.S.C. §102(b) as anticipated over JP-11-060833. It is the Examiner's position that the Japanese patent document teaches monolayer heat sealable films made from a metallocene-catalyzed propylene copolymer and that the polymers produced are isotactic in nature and have random comonomer distributions of the comonomer. The Examiner also states that the materials have good seal / melt properties.

The claims of the present invention are not anticipated by the 833 reference. The claims had previously been amended in error to include an limitation regarding melting points. This amendment was made upon the belief that the JP reference included a table with melting point temperatures. It is now believed that the reference in fact is to heat-seal initiation temperatures. The independent claims of the present invention have been amended to include a limitation of having a surface with a heat-seal initiation temperature of less than or equal to 125°C. The heat seal range of temperatures for the 833 reference is from 127°C to 136°C. The claims of the present application, as now amended, are clearly outside of the scope of the teachings of the 833 reference.

Claims 1, 3, 4, 6-19 21, 22, 24-30 32, 33, and 35-42 stand as rejected under 35 U.S.C. §102(b) as anticipated over EP 0-669-348. It is the Examiner's position that the European patent teaches propylene copolymers made by metallocene catalysis, which have desirable sealing characteristics. The Examiner states that the 348 reference teaches that materials are used in the formation of monolayer and multi-layer films in which a thin sealant layer (100 microns) is placed on a base layer of polypropylene (500 microns) to yield a film in which the sealant layer composes 20% of the film and that the comonomers present include those claimed and they are in the claimed amounts. He further states that the reference clearly teaches that small amount of ethylene may be present as long as it does not damage the physical properties of the copolymer.

The Claims of the present invention are not anticipated by the 348 reference. The 348 reference teaches the production of polymers including butylene. The Claims of the present invention have been amended to exclude claims to terpolymers in general and butylene terpolymers in specific.

The claims of the present invention have now been amended to include an amount of ethylene of from 1 to 15 percent. The 348 reference teaches away from use of ethylene:

Page 2, lines20-23: "The random copolymers have sufficient transparency and heat-sealing properties attributable to their low crystallinity and low melting point. The content of 20°C xylene soluble fraction (CXS) in the random copolymer, which has an undesirable property for food wrapping, **extremely increases with the content of ethylene** and/or alpha-olefin."

Page 3, Lines 48-49: "A small quantity of ethylene may be copolymerized in the propylene random copolymer of the invention as long as the ethylene does not damage the physical properties of the resulting copolymer.

Page 7, Lines 26-39: After 0.2 parts by weight of Sumilizer BHT (a phenolic antioxidant, mfd. by Sumitomo Chemical Co., Ltd.), 0.05 parts by weight of Irganox 1010 (a phenolic antioxidant, mfd. by Ciba- Geigy Ltd.), and 0.1 parts by weight of calcium stearate were added to 100 parts by weight

of the copolymer thus obtained, the mixture was blended with a small-sized roll kneader for 10 minutes and cut into pellets. A 90mmx90mm sheet laminate, which consists of a polypropylene layer of 500[micro]m thick (polypropylene: FS2011D manufactured by SUMITOMO CHEMICAL CO., LTD.; MFR = 2.2 to 2.8 g/10 minutes; density = 0.902 g/cm (3), and **ethylene content = 0.3 to 0.5 % by weight**; CXS = 3.5 % by weight, Tm = 158[deg]C) and a sealant layer of 100[micro]m thick prepared from the copolymer was pre-heated at 150[deg]C for 3 minutes and stretched at a rate of 5 m/minute and a draw ratio of (XxY)=5x5 times with a portable biaxial stretching machine (by Toyo Seiki Seisaku-sho Ltd.) to a film of 22[micro]m thick. The heat-sealing temperature of the film was 121[deg]C both before and after the corona discharge treatment. Substantially no blocking resistance was observed as the blocking resistance value of 0 kg/12cm (2), and the total haze was equal to 1.4 %. The results of evaluation are shown in Table 1.

The only reported ethylene content was from 0.3 to 0.5 percent, considerably less than the lower limit of 1 percent of the present application.

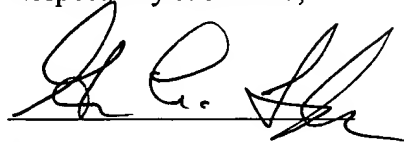
Claims 1, 3, 4, 6-19 21, 22, 24-30 32, 33, and 35-42 stand as rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0-669-348 in view of JP-I 1-060833 or the converse. These same claims also stand as rejected over the 348 reference standing alone.

The 348 reference teaches that the inclusion of ethylene is bad in the production of heat sealable films. As already shown in the arguments against anticipation by this reference, the 348 reference actively teaches away from the use of ethylene. One of ordinary skill in the art of preparing polymer would not have been motivated to combine these references, or merely add ethylene to the copolymers of the 348 reference in view of this teach away. The Claims of the present invention are therefore not obvious in view of this reference.

Summary

The claims as amended are neither anticipated by nor obvious over the art cited by the Examiner.
Allowance of all non-cancelled claims is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'G. L. Tyler', written over a horizontal line.

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